

Heavy Ion SEE

Test Org.*	Device	Function	Technology	Mfr.	Effective SEU LET* Threshold	Device Xsection (cm ²)	Bits Tested	Bit Xsection (cm ²)	Test Date	LUTH	LU Xsection (cm ²)	Fac.	Remarks	23-Aug-99
FIFOs														
Note: Entries in RED indicate data added since the 1997 Compendium.														
GSFC	7204	4K x 9	CMOS	IDT	8 to 11.6				Nov-94	16		BNL	LaBel. SEU cross section obscured by SEL.	
JH	54AC708		CMOS/epi	NSC	21	8.0E-04			Jul-92			BNL	Kinnison 92IEEE Wrkshp Rec., pg 12. 10% of upsets are control errors.	
MHS	67201F (Temic type)	512 x 9	CMOS	MHS			100			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
MHS	67202F (Temic type)	1K x 9	CMOS	MHS	4		100			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
MHS	67203E (Temic type)	2K x 9	CMOS	MHS	4		100			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
MHS	67204E (Temic type)	4K x 9	CMOS	MHS	4		100			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
GSFC	6704EV-50	4K x 9	CMOS	MHS	see remarks				1997			BNL	O'Bryan, et al, 98IEEE Wrkshp Rec., pg 39. D/C 9636. LETth ~3 (byte errors); ~8 (control errors); ~35 (Mode Change)	
MHS	67205E (Temic type)	8K x 9	CMOS	MHS	4		100			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
JH	7134RT	8K x 8	CMOS	IDT					Apr-92			BNL	10% of upsets are control errors. Kinnison 92IEEE Wrkshp Rec., pg. 12.	
ARSP	7201LA50TCB	512 x 9	CMOS	IDT					Sep-89	13	2.0E-03			
GSFC	7201T	512 x 9	CMOS- various split epi	IDT	<3.4				May-94	<26 to >80		BNL	LaBel, et al, RADECS 95, pg 258. Variable LU LETs from varied epi thicknesses (6, 8, 10 &12 μ m). Only 6 μ m epi devices did not latchup.	
GSFC	7202RE	1K x 9	CMOS/epi (10 μ m.)	IDT	3.5	4.2E-03		4.6E-07	Sep-92	38		BNL	LaBel	
GSFC	7202RE	1K x 9	CMOS/epi	IDT					Sep-92	38		BNL	LaBel	
JH	7202RT	1K x 9	CMOS	IDT					Apr-92	15		BNL	Kinnison	
GSFC	7203ERP	2K x 9	CMOS	IDT	8 to 11.6				Nov-94	35		BNL	LaBel. SEU cross section obscured by SEL. Destructive bursts at LET = 20 (due to control areas?).	
GSFC	7203L40DB	2K x 9	CMOS	IDT	3.4	5.5E-03			Jun-94	15 to 22		BNL	LaBel. D/C 3BC9334BP.	
JH	74AC725		CMOS/epi	NSC	9	3.0E-03			1992			BNL	Kinnison 92IEEE Wrkshp Rec., pg 12. 10% of upsets are control errors. Possible "minilatch".	
JPL	AM2813		PMOS	AMD	10	6.0E-03		2.0E-06				UCB		
JH/NRL	AMD7202	1K x 9	CMOS	AMD					Jan-91	<26		BNL		
JH	AMD7204	4K x 9	CMOS	AMD					Jan-91	<26		BNL		
ARSP	C57401		CMOS	MMI					Jun-88	>60		UCB		
ARSP	CY7C401		CMOS	CYP					Jun-88	10	6.0E-04	UCB		
HON	CY7C429-30DM		CMOS	CYP	<<4.3				Apr-93	7.7		BNL	Pointer errors put device in an unknown state at LET = 6.4.	
MMS	M67202	1K x 9	SCMOS/epi RT	MHS					1991	>140		GANIL	Dufour, 92IEEE Wrkshp Rec., pg 21.	
GSFC	M67204EV-50	4K x 9	SCMOS/epi RT	MHS	37.1				1996	64.7		BNL	LaBel, et al, 97IEEE Wrkshp Rec., pg 14.	

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